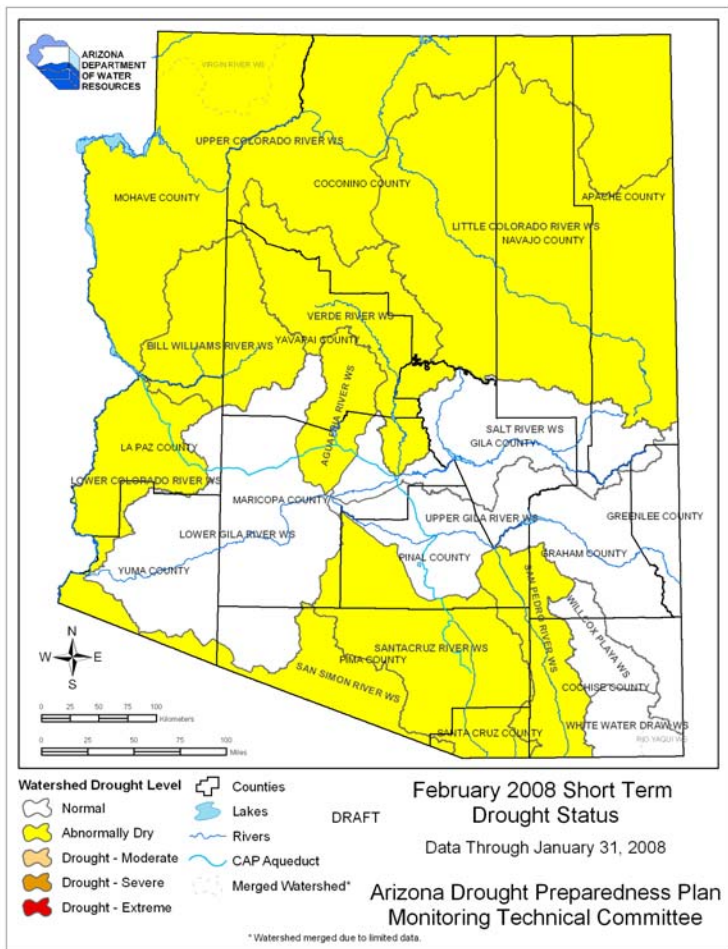


Arizona Drought Monitor Report February 2008

Short-term Drought Status

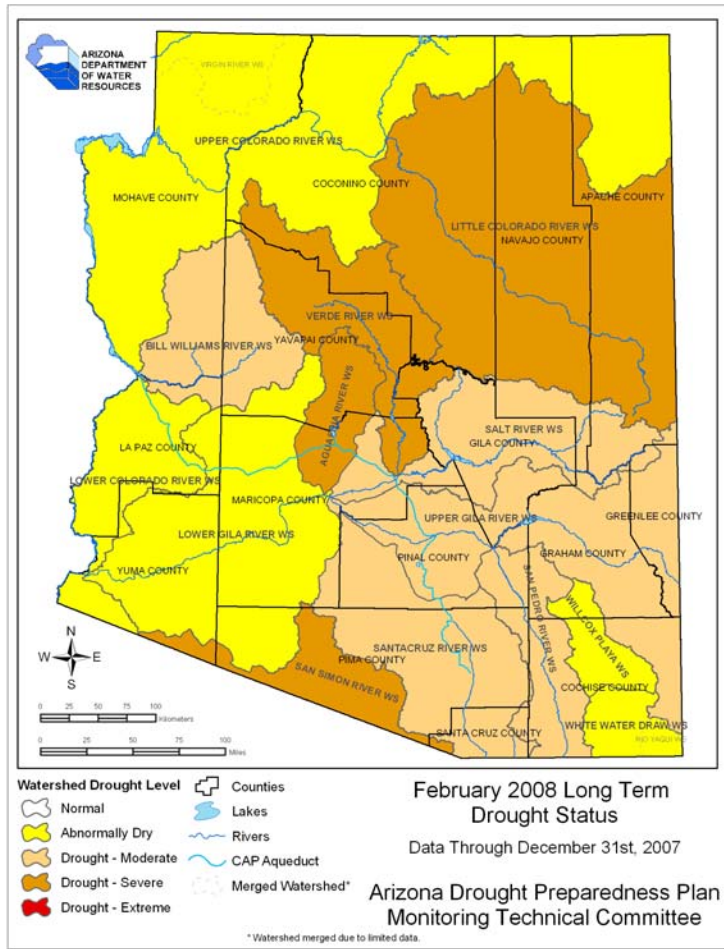


Short-term Update

Above-average precipitation during the past three months has improved the drought conditions in the short term across most of the state. Eleven watersheds improved one category, with the Salt, Upper Gila, Willcox Playa and Whitewater Draw improving from abnormally dry to normal, and seven others improving from moderate drought to abnormally dry. There are currently no watersheds at or below the moderate drought level. The January winter storms missed much of south central Arizona, leaving the San Simon, Santa Cruz, and San Pedro watersheds with poor range conditions. The rest of the state has received significant precipitation from wet winter storms that have continued into mid-February. A recent shift in circulation patterns in the eastern Pacific may signal a return to the warm, dry conditions forecast by the Climate Prediction Center.

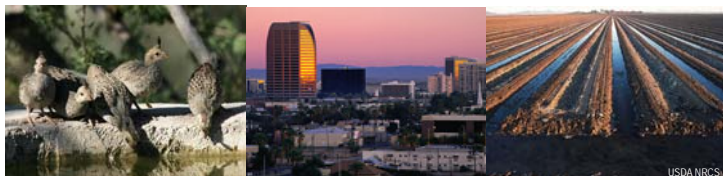


Long-term Drought Status



Long-term Update

The long term drought status is analyzed quarterly to assess seasonal changes. The January update, using the October-December data, saw long-term drought improvement in the Lower Gila and Willcox Playa in southern Arizona, the Upper Colorado and Virgin watersheds in northern Arizona and the Salt River watershed in east central Arizona. These watersheds benefited from a series of cold, wet, early winter storms that saturated the soil and initiated an early snowpack. The next update in April will include the January-March precipitation. While January and early February have been wetter than average, the rest of the winter may become drier and warmer, as forecast by the Climate Prediction Center.



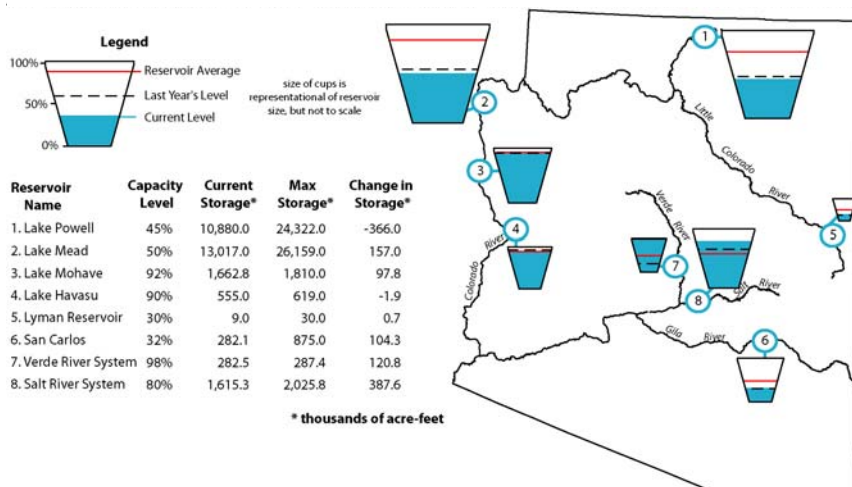
Reservoir Storage



Arizona Reservoir Status

Storage increased substantially in reservoirs within Arizona's borders. Storage in the Salt and Verde River reservoirs increased by more than 500,000 acre-feet during the last month; current levels in these reservoirs are well above last year's levels. Storage in San Carlos Reservoir also increased. Storage in Lakes Powell and Mead declined, and is expected to continue declining until the spring 2008 snowmelt runoff season, when current forecasts (page 17) anticipate slightly above-average inflow to Lake Powell. According to the U.S. Bureau of Reclamation, Lake Powell elevation is near its seasonal low, and anticipated snowmelt runoff will allow Powell to exceed its 2007 peak elevation.

Arizona reservoir levels for January 2008 as a percent of capacity. The map depicts the average level and last year's storage for each reservoir, while the table also lists current and maximum storage levels.

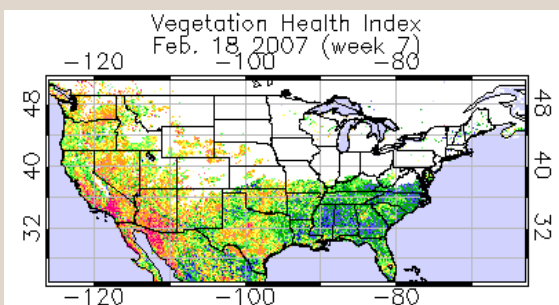
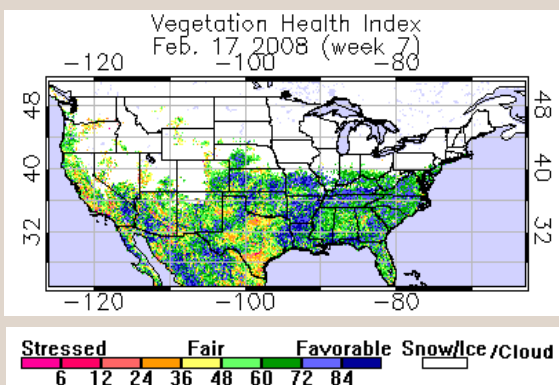


Photos by the National Park Service

Vegetation Health



Recent vegetation health index data from the NOAA Center for Satellite Applications and Research (top figure) continue to show marked improvement in contrast to one year ago (bottom graphic). Arizona's low desert regions are beginning to green-up in response to abundant winter moisture. The Southwest Coordination Center's early outlook for fire potential in June and July suggests above-normal potential across southeastern Arizona for approximately 4-6 weeks before monsoon onset – which usually occurs in early July. High elevation areas, many of which have received abundant snow thus far this winter, are not expected to pose above-normal fire risks, as herbaceous fuels have been compacted by snow. (White areas indicate substantial cloud cover.)

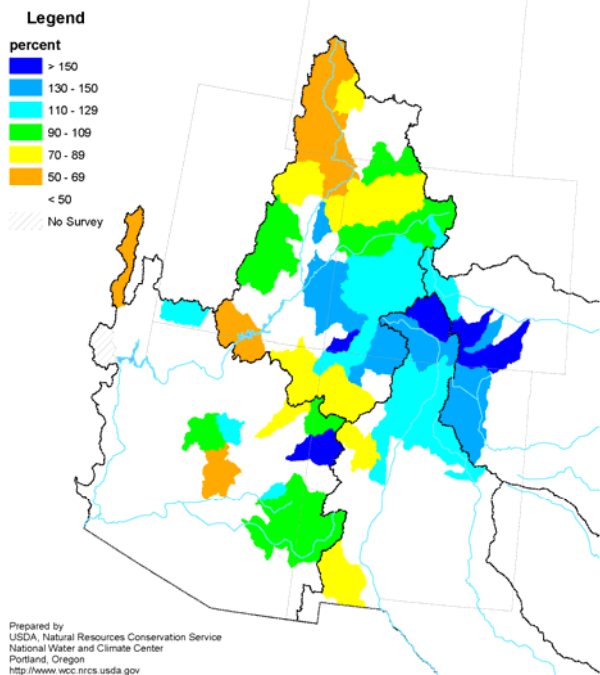


Images are obtained from the NOAA National Environmental Satellite, Data and Information Service (NESDIS).

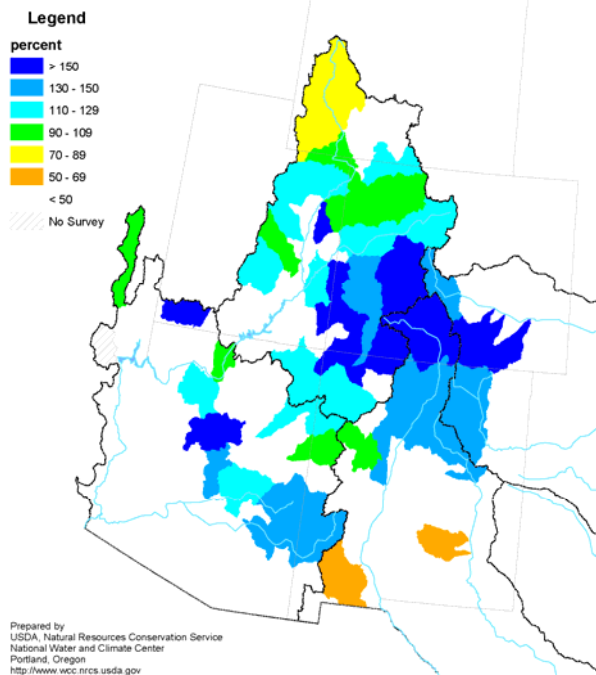
Mountain Precipitation



**Arkansas, Colorado and Rio Grande Basin
Mountain Snowpack
as of January 1, 2008**



**Arkansas, Colorado and Rio Grande Basin
Mountain Snowpack
as of February 1, 2008**



Several major snowstorms during January added to an already above-normal snowpack throughout the mountains of northern and eastern Arizona. For the water year to date, precipitation is above average in all river basins, ranging from 126 to 166 percent of average (see table below right).

Mountain Snowpack

Watershed	Percent of 30-Year Average	
	Snowpack Levels as of	
	Jan. 1	Feb. 1
Salt River Basin	126%	133%
Verde River Basin	144%	151%
Little Colorado River Basin	104%	125%
San Francisco-Upper Gila River Basin	124%	138%
Other Points of Interest		
Chuska Mountains	108%	123%
Central Mogollon Rim	97%	122%
Grand Canyon	100%	105%
San Francisco Peaks	164%	204%
Arizona Statewide	128%	138%

Water Year Precipitation

Watershed	Percent of 30-Year Average
	Precipitation Oct 1-Jan 31
Salt River Basin	153%
Verde River Basin	159%
Little Colorado River Basin	166%
San Francisco-Upper Gila River Basin	126%
Other Points of Interest	
Chuska Mountains	--
Central Mogollon Rim	--
Grand Canyon	175%
San Francisco Peaks	--
Arizona Statewide	--

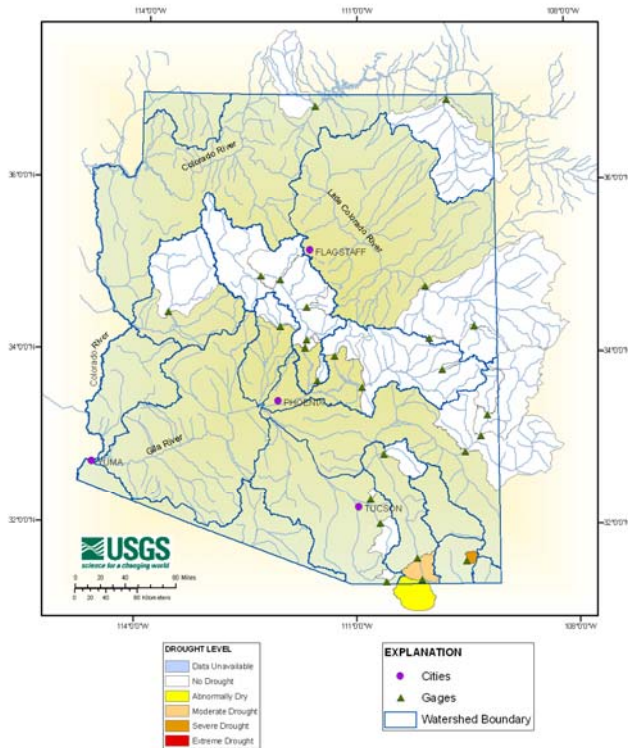
Source USDA-NRCS

Mountain Streamflow



Drought Levels Based on Monthly Streamflow Discharge

January 2008



January Streamflow

Water body	January Runoff in Acre Feet	% of Median
Salt River near Roosevelt	42,365	173%
Tonto Creek above Gun Creek near Roosevelt	9,961	169%
Verde River at Horseshoe Dam	32,220	135%
Combined Inflow to Salt River Project (SRP) reservoir system	84,546	139%
Little Colorado River above Lyman Lake	307	64%
Gila River to San Carlos Reservoir	50,604	293%

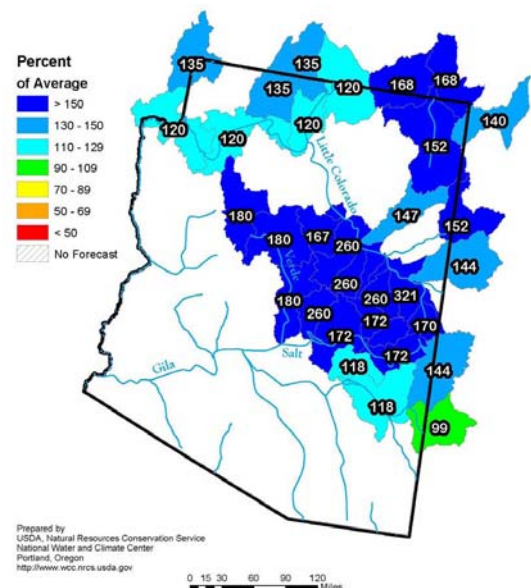
Streamflow Observed at USGS Gauging Stations

Streamflow Forecasts

The forecast calls for above normal to well above normal streamflows in all basins during the spring snowmelt season.

Water body	Forecasted Runoff (February-May unless noted) in Acre Feet	% of Median
Salt River near Roosevelt	610,000	172%
Tonto Creek	130,000	260%
Verde River at Horseshoe Dam	360,000	180%
San Francisco River at Clifton	85,000	144%
Gila River near Soloman	170,000	118%
San Carlos reservoir inflow	135,000	161%
Little Colorado River above Lyman Lake	Jan-June – 12,100	170%
Little Colorado River at Woodruff	9,000	321%
Colorado River inflow to Lake Powell	Apr-July – 9.5 million	120% of 30-yr. avg.
Virgin River at Littlefield	Apr-July – 99,000	134% of 30-yr. avg.

Arizona Spring Streamflow Forecasts as of February 1, 2008



Temperature and Precipitation



Like December, January was extremely wet most places in the state, above the 78th percentile. The exceptions were in the north-west and southeast, where precipitation was near average. January temperatures were near average along the lower Colorado River and in the southern climate divisions, and well below average in central and northeastern Arizona where cold winter storms brought significant snowfall to the state.

The 3-month period of November through January has been extremely wet across most of the state, averaging between the 63rd and 95th percentile. Although all climate divisions of the state had above-average 3-month temperatures, much of the precipitation has fallen as snow, and the snow pack remains well above average. For the second month in a row, the 3-month temperatures have dropped across the state.

The 6-month period precipitation was again near- to slightly below-average in the southeast, and well above average in all other watersheds. This period reflects the tail end of the wet monsoon along with the wet winter. The dry spot in the state is the Virgin watershed, which is just below the 15th percentile. The colder than average winter temperatures have brought all but two climate divisions down below the 85th percentile.

The 12-month period has improved across almost every watershed with 8 watersheds well above average, five near average and only

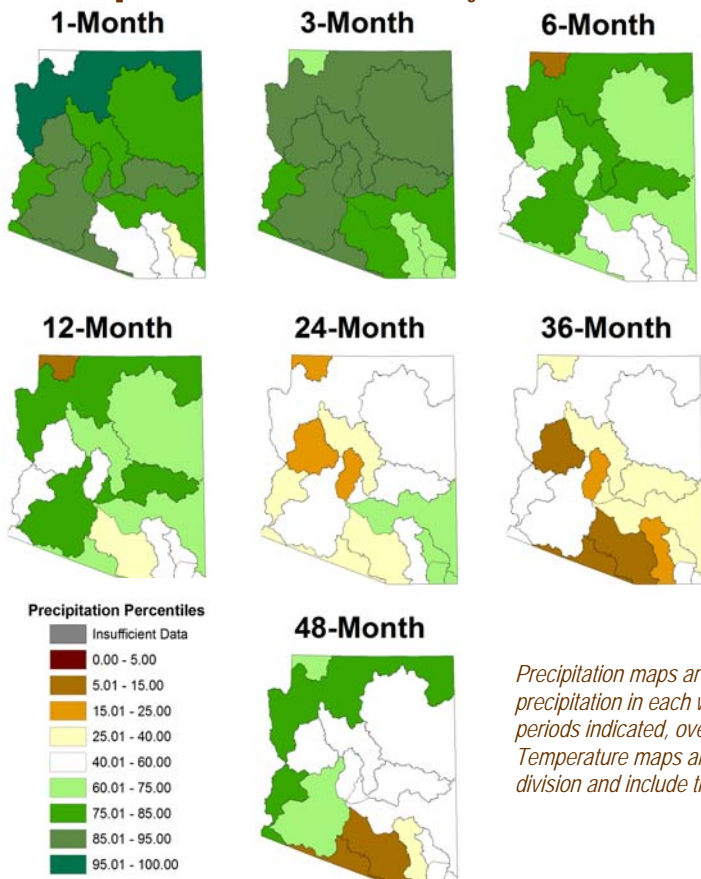
two below average. The 12-month period became warmer for most climate divisions with all climbing above the 86th percentile.

The 24 month period is no longer the driest long-term period. Three watersheds in the southeast are well above average, five are now near average, four are slightly below average and three remain well below average. The driest are in northwest and west central Arizona. Temperatures for the 24-month period have dropped below the 80th percentile in the northwest, and remain above the 96th percentile in the south.

The 36-month period has become the driest period with 14 watersheds below the 50th percentile, 10 below the 37th percentile, and 5 below the 22nd percentile. The driest are the Bill Williams and Agua Fria in west central Arizona and the San Simon, Santa Cruz, and San Pedro in the south. Temperatures over the three-year period remain high, with all but the northwest climate division above the 89th percentile.

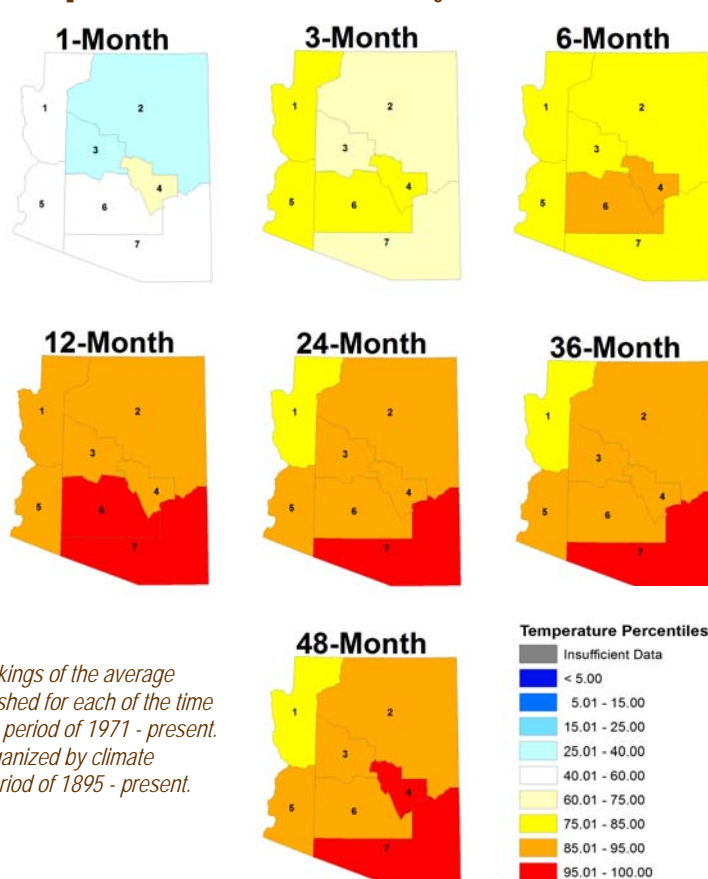
The 48-month period continues to show above average precipitation across the western and northern watersheds, near average precipitation in the central and eastern watersheds, and below average precipitation in the southern watersheds. Two climate divisions in southern and central Arizona are above the 95th percentile for temperature, and four others are between the 88th and 94th percentiles.

Precipitation Percentiles by Watershed



Precipitation maps are rankings of the average precipitation in each watershed for each of the time periods indicated, over the period of 1971 - present. Temperature maps are organized by climate division and include the period of 1895 - present.

Temperature Percentiles by Climate Division



Weather Outlook

Arizona Drought Monitor Report -
Produced by the Arizona State Drought
Monitoring Technical Committee

Co-chairs:
Gregg Garfin, University of Arizona –
Institute for the Study of Planet Earth

Tony Haffer, National Weather Service

Mike Crimmins, Extension Specialist,
University of Arizona Cooperative
Extension

Dino DeSimone, Natural Resources
Conservation Service

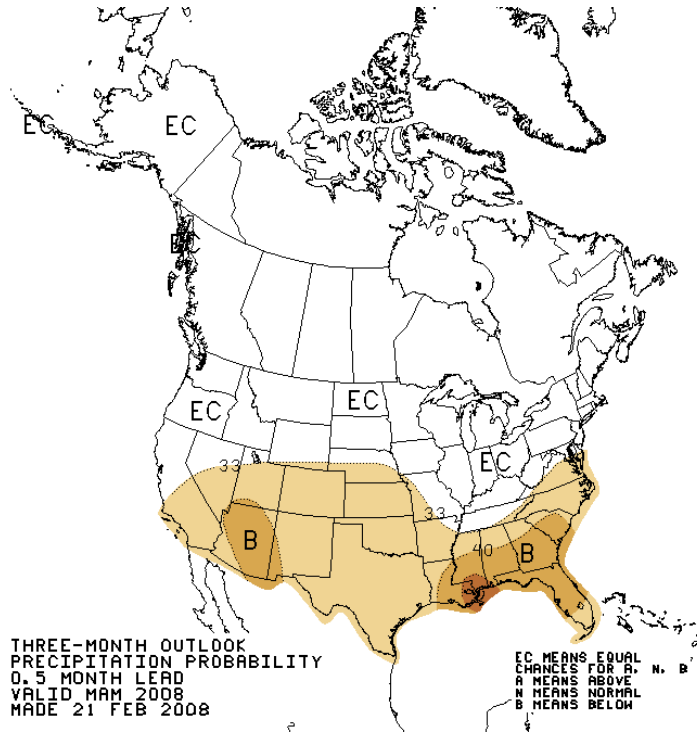
Charlie Ester, Salt River Project

Ron Ridgway, Arizona Division of Emer-
gency Management

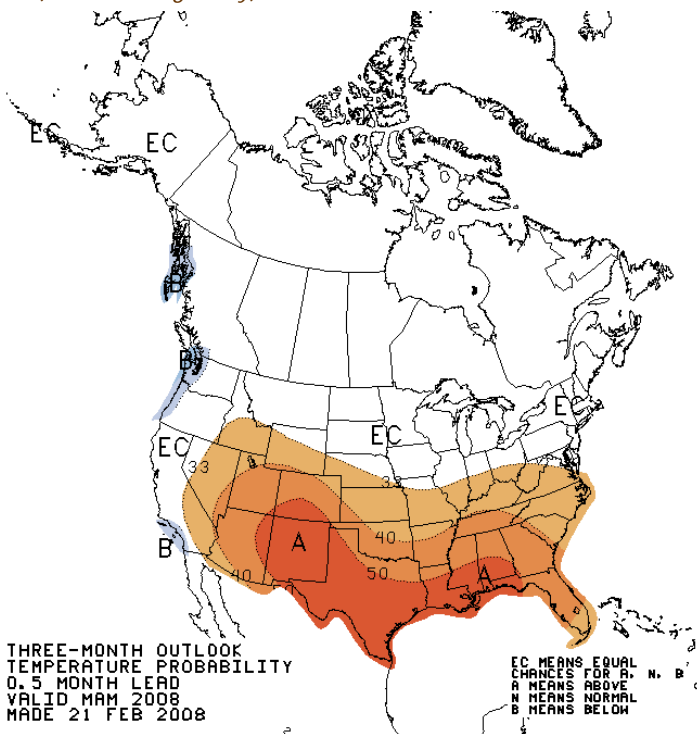
Nancy Selover, State Climatologist
Arizona State University

Chris Smith, U.S. Geological Survey

Coordinator: Susan Craig, Arizona
Department of Water Resources
Computer Support: Andy Fisher, Arizona
Department of Water Resources



Moderate level of confidence precipitation will be below average across the state during the 90-day period (March through May)



Moderate level of confidence temperatures will be above average across the entire state for the 90-day period (March through May)